

Daily GLOWBUGS

Digest: V1 #73

via AB4EL Web Digests @ SunSITE

Purpose: building and operating vacuum tube-based QRP rigs

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%%%% GlowBugs %%%%% GlowBugs %%%%% GlowBugs %%%%% GlowBugs %%%%%

Subject: glowbugs V1 #73

glowbugs

Friday, July 11 1997

Volume 01 : Number 073

Date: Wed, 9 Jul 1997 20:33:21 +0000

From: Sandy W5TVW <ebjr@worldnet.att.net>

Subject: Battery prices!?!

Does anyone have a clew for the outrageous rise in battery prices in the past few months? Is it just greed on the manufacturers' part, or some "hidden tax" the Greenies have instituted on us to "save the environment"? 9 volt 'transistor' batteries and flashlight size cells have gotten almost unaffordable. I've watched '2-pak' 9 volt alkalines jump from \$1.50 at sale prices to \$5-6 "list" prices!! Jeese...what's going on? Anybody know?

73,

E. V. Sandy Blaize, W5TVW

"Boat Anchors collected, restored, repaired, traded and used!"

417 Ridgewood Drive,

Metairie, LA., 70001

ebjr@worldnet.att.net

Looking for: 860 tubes, WL-460 tubes

RK-34(VT-224) tubes, Butternut HF2V antenna

Date: Wed, 9 Jul 1997 19:49:01 -0400 (EDT)

From: EWoodman@aol.com

Subject: Jones 6L6 Rig

Bobbi,

Just for my edification.....what distinguishes a "Jones" 6L6 rig from any other? That is, other than the fact that it appears to be a good producer of TVI! (Sorry, couldn't resist) I guess I've heard it mentioned before but wasn't sure what made it different.

Eric K1YRV

Date: Wed, 9 Jul 1997 17:04:58 -0700 (MST)
From: Jack Meadows <jackmead@getnet.com>
Subject: One Tube 35 Watter: The Final Chapter

Hi Gang,

I had a huge response to my offer to send a schematic of my 6DQ6B one tube 35 watter! If you didn't get it, send me a request, and I will send it to you as a email attachment. If you asked for it, and haven't received it, let me know. I think a couple of emails failed.

I found a tank coil that will work on 40 meters AND 30 meters just by retuning the tune and load capacitors. (no coil change to switch bands, just change xtals and retune) Here it is:

15 turns, #22 hookup wire on a plastic 35mm film cannister.
The link coil is 3 turns wound on the cold end.

On 30 meters, it was putting out 38 watts! I have had this thing key down for long periods while playing with tank coils and the tube shows no degradation.

Also, I tried a 6146B in the same circuit. All I had to do was move the connections from pin 4 to pin 3 and short pin 8 to pin 1. The power out was the same with the 6146B tube, so I changed it back to the 6DQ6B tube. I prefer using inexpensive tubes...ha!

My first qso on 30 meters was to the Cayman Is. Fun!

There seems to be alot of interest in one tube glowbugs. It would be fun to have an informal net and hear from all the glowbuggers out there running those xtal oscillators! 7050 Mhz has alot of activity, but propagation restricts area coverage this time of year. Thirty meters has more coverage and a little less QRN. Anyone know how to organize a net and would like to start one up?

My best regards to all,
Jack W7QQQ

Date: Wed, 09 Jul 1997 18:11:27 -0700
From: "Paul Carreiro, N6EV" <carreiro@barepower.net>
Subject: FW: 6146B QUESTIONS

For those not subscribed to the boatanchors list, this very informative post came from John Sehring today regarding 6146B operation.

>Date: Wed, 9 Jul 1997 13:03:22 -0400 (EDT)
>From: JOHN_SEHRING.parti@ecunet.org (JOHN SEHRING)

>To: Old Tube Radios <boatanchors@theporch.com>
>Subject: 6146B QUESTIONS

>>From CQ, April 1964, p. 67:

>
>"Since RCA come with the new version of the 6146 tube, we have had many
>letters asking us if the new tube (6146B/8298A) can be used with certain
>transmitters. In some instances, we have told our readers that their tx's
>did not have enough reserve power [power supply] for the the new tube--in
>other instances we told them that other than raising the screen voltage and
>staying with the plate current limits set by the manufacturer, the tube
>would work fine.

>
>The safe limits for the 6146B depend on the class of service. For example,
>for ssb, the tube has a rated plate dissipation of 35 w (with 750 v on the
>plate, load to 220 mA plate current). Class C cw power ratings are
>exactly the same. The screen voltage in class AB1 (with a dc grid voltage
>of -65 v) can be set so that the 220 ma plate current is not exceeded.
>Depending upon the circuit, the screen voltage can be raised as much as 25
>v.

>
>Remember that the old 6146 has a plate dissipation rating of only 25 w
>(ICAS). In class AB1, the 6146 has a max signal plate current of about
>110 mA at 600 v; the screen voltage being set at 200 v and the bias at -50
>v.

>
>If your power supply is dynamically stable and capable of the extra current
>demanded by the 6146B [if you run/load it that way], you'll have little
>trouble. ...However most tx's ps do have the extra power margin required.

>
>When using the new tube, first load below the mfr's ratings--then check for
>[excess] xfmr and choke heating. Even with ssb, this is necessary.

>
>Remember that if you're on ssb you more than likely have voltage
>regulation applied to the screens of your 6146's. Your particular screen
>voltage regulator ct may need some changes.

>
>>> Using the new tube w/o changing the screen voltage to a higher value (as
>recommended by the mfr.) will *not* result in maximum output. <<

>
> ...With a power input increase of 33% over the older tubes, the new
>tube is worth trying."

>
>*****

>
>>From CQ July 1964, p. 74:

>
>"Yes, the new tube [6146B/8298A] can replace the 6146, 6146A and 8298
>unilaterally.

>
>The max grid current (ICAS) for class C A.M. is 4 ma, if the dc grid
>voltage is -150 volts, the plate voltage is 600 v and the screen voltage is
>250 v. Max plate power input is 85 w ICAS in class C for one tube.

>
>The zero-signal dc plate current in ICAS with 2-tone modulation is 25 ma in
>class AB1.

>
>The dc plate current a peak of envelope in ICAS for a signal having a
>minimum peak-to-average ratio of 2 is 220 ma max, in class AB1.

>
>No, I do not recommend using the new tube in the Heathkit TX-1 unless the
>power xfmr is changed [take heed!].
>
> ...To be on the safe side, the ps should have a *dynamic* [short
>term, voice peak] capability of 350 ma at 750 v.
>
>In class AB2, -46 v is needed for bias (two tubes) for CCS operation, with
>a plate voltage of 500 v, and regulated screen voltage of 200 v. Zero
>signal dc plate current is 50 ma. In CCS service, the max signal dc plate
>current is 308 ma. Signal power output at these values is 100 w, in af
>power amplifier service [e.g. AM modulator]. RF output will be close to
>the af value.
>
>Maximum power output will be obtained when the tube is operated under load
>conditions such that the max rated plated current flows at the the plate
>voltage which gives the max rated input [?].
>
>If the plate shows any color at all at full ratings under ICAS or CCS
>service, max ratings have been exceeded.
>
> ...Make sure you have enough ventilation around the tube...500 degrees F
>max bulb temperature..."
>
>Both articles from CQ column Ham Clinic by Charles Schauers, W4VZO.
>
> -John Sehring (Wed, Jul 9, 1997 10:46 am MT @Baker, Montana) UCC WB2EQG>
Paul F. Carreiro - N6EV - ex-N6HCS - El Camino Village, CA
E-Mail: carreiro@barepower.net - <http://www.barepower.net/~carreiro/>
QRP - Boatanchors - Glowbugs - Mobile CW - QRQ +45WPM - ZUT!
NorCal QRP #367 - QRP QRCI #8885 - CW FISTS #1407 - QRP-L #236
Zuni Loop Mountain Expeditionary Force (QRP Field Day)

Date: Thu, 10 Jul 1997 04:07:56 +0000
From: Sandy W5TVW <ebjr@worldnet.att.net>
Subject: FT: Eico 710 Grid Dipper

For trade: EICO 710 grid dip meter, complete with a book and all coils.
It is WELL used. It is all there and works just great. Would like to trade for
something else, it is an excess one to my needs.

I'm looking for a metal box that housed the Millen Grid dipper and
coils.
Also a couple of IRC resistor boxes-empty or Ohmite "Little Devils" resistor
boxes empty in good condition-no cracks etc....or ??????

73,
E. V. Sandy Blaize, W5TVW
"Boat Anchors collected, restored, repaired, traded and used!"
417 Ridgewood Drive,
Metairie, LA., 70001
ebjr@worldnet.att.net
Looking for: 860 tubes, WL-460 tubes
RK-34(VT-224) tubes, Butternut HF2V antenna*

Date: Thu, 10 Jul 1997 02:51:36 -0500
From: "Don Buska" <d.buska@aaiate.com>
Subject: reciepe-mom

Hi Mom. This is my first attempt to write and send an E-Mail without Don around also!! Hope you get it and not some stranger somewhere in Timbucktoo!!

Got your wallpaper samples yesterday in the mail. They really do look like "Decorator" samples - not Wal-mart stuff. I'll bet the kitchen looks gorgeous. I was also thinking that the rich offwhite bacground and soft green really look better with the wood cabinets?!

Since I spoke with you yesterday via phone I don't have much new news. But, I do have a reciepe that sounds heavenly. Haven't tried it yet but got from Cathy Haley, so

Cherry Blossoms in a Cloud

6 egg whites
1/2t cream of tatar
1/4t salt
1 3/4c sugar

FILLING

2 pkgs (3 ozs each) softened creme cheese
1 c sugar
1t vanilla
2c whipping creme whipped
2c mini marshmallows (cause they're good, Gram!)

TOPPING

1 can (21 ozs) cherry pie filling
2c fresh sliced strawberries
1t lemon juice

In mixing bowl, beat egg whites, cream of t, and salt till foamy. Gradually add the sugar, beating on hi till stiff peaks form (don't underbeat). Spread evenly in greased 13x9 pan. Bake 275 1hr, turn off oven (do not open door). Let cool in oven overnight or at least 12 hours. Beat creme cheese, sugar and vanilla till smooth; gently fold in creme and marshmallows. Spread over meringue. Chill 4 hours, Cut into 16 pieces. Combine topping ingredients; spoon 1/4 cup over each serving. Yield=16 servings.

Sounds yummy, huh?

Dad, I talked with Aunt Mary last night after talking with you. She doesn't think Grampa will come home for a few more days; he went for radiation yesterday, and will go again for a while. The doctor wants to double up on the strength of treatment, so it won't be 6 weeks, and the place he goes is really close (Waukegan) too, so she didn't sound worried. I guess he'll only do these while he's in the hospital. She said they gave him morphine the day after admitt, and he was feeling much, much better. But yesterday he was sick to his stomach all day, and

they don't know what that is from. Also, docs still divided on shingles vs. no shingles. Needless to say, Mary sounded tired!

Thanks to you both for your e-mails. Yours was a keeper, Dad!!
Thanks so much.

Stupid joke of the day. Why did the blonde get fired from the M & M factory? She kept throwing away the W's. ARR ARR ARR!!!

Talk to you soon,

Love,
The Bon

Date: Thu, 10 Jul 1997 09:49:06 -0500 (CDT)
From: mjsilva@ix.netcom.com (michael silva)
Subject: FWD: 6AG7-Y used as a 6V6?

Here's a bit of tube-talk that happened on the boatanchors(2) list:

Brian Carling wrote:

>On 4 Jul 97 at 23:10, michael silva wrote:
>
>> Jeff Herman wrote:
>> >
>> >More scouting within my Globe Scout shows a metal 6AG7-Y sitting
>> >in the 6V6 socket (xtal oscillator). Is one a replacement for the
>> >other?
>>
>> No, it's not a plug-in replacement, but in the application it's a
>> better tube. Somebody must've rewired the socket to take the 6AG7.
>>
>> 73,
>> Mike, KK6GM
>
>I am curious why you say the 6AG7 is a "better tube" than the 6V6.
>
>If so, how come they weren't used more for speaker drivers in
>domestic radios etc.?

Brian,

I said the 6AG7 was a better tube "in the application" (crystal oscillator). QST had an article in 1950(?) investigating commonly-used tubes for crystal oscillators and the 6AG7 came out head and shoulders above the 6V6/6L6/6F6 crowd. I believe it's a combination of very high gm (hence less crystal drive required) and more effective screen and suppressor grid shielding (hence better isolation of the load from the crystal). The ARRL handbooks consistently recommended it (and later, other video amplifier tubes such as the 12BY7 and 6CL6 [a 6AG7 stuffed into a mini bottle]) as the oscillator tube of choice, along with the 5763 which seems to also have both of the above characteristics.

73,

Mike, KK6GM

Date: Thu, 10 Jul 1997 10:38:28 -0600 (MDT)
From: dfrancis@iex.net (Dexter Francis)
Subject: Heath AA-32 Manual & Info needed

Greetings all -

Recently acquired a Heath AA-32 amplifier. It appears to have 4 6AW8's - two pair running push pull - in the output. (stereo) Would like to get a used schematic/manual for it from someone here, before having to pay Heath for the privilege of making a copy.

- -df

* CWest Tube Sales - P.O.B. 22443 SLC, UT 84122 *
* http://www.usa.net/~dfrancis/CWest_Tube_Sales.html *
* e-mail to: tubes@usa.net *

Date: Fri, 11 Jul 1997 10:15:28 -0700 (MST)
From: Jeff Duntemann <jeffd@coriolis.com>
Subject: Transformer volt/amp ratings vs the real world

Hi gang--

Excuse the long absense; I've had three out-of-town sales meetings (and one out-of-continent sales meeting) plus vacation in the last five weeks. There's spiderwebs on the GDO, alas.

But I got the new All Electronics catalog yesterday, and it includes a nice little isolation transformer about the size of those 125V, 50ma transformers I used to use in the Sixties for one and two tube projects. The trouble is, the catalog gives its rating as 50VA, or 425ma!

Now, there's no way (in my experience) that a 2" square U-strap transformer will source 400+ mils. So what, if anything, does a volt/amp rating mean, and how do we translate such ratings to realistic expectations of current sourcing ability? I've noticed before that VA ratings seem unusually generous. I'm wondering if anybody here can clarify this point.

No compelling glowbug deals in this catalog, apart from mica-filled 7-pin miniature tube sockets and the usual octal relay sockets. You can call them at 818-904-0524 and request a catalog. It's general modern-day (i.e., silicon) electronic surplus and odds and ends.

- --73--

- --Jeff Duntemann KG7JF
Scottsdale, Arizona

End of glowbugs V1 #73

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